Safety Instructions & Operator's Manual for



NOTE: Specifications are correct at time of printing and are subject to change without notice.



<sup>\*</sup> Actual sustained engine power will likely be lower due to operating limitations and environmental factors. Please refer to 'Engine Power Rating Information' for further details.

**Thank You** for purchasing this quality-built Snapper product. We're pleased that you placed your confidence in the Snapper brand. When operated and maintained according to the instructions in this manual, your Snapper product will provide many years of dependable service.

**This manual contains** safety information to make you aware of the hazards and risks associated with the machine and how to avoid them. This machine is designed and intended only for finish cutting of established lawns and is not intended for any other purpose. It is important that you read and understand these instructions thoroughly before attempting to start or operate this equipment. Save these instructions for future reference.

#### PRODUCT REGISTRATION

IMPORTANT: KEEP THIS INFORMATION FOR YOUR PERSONAL RECORDS (Complete the following information on your Snapper purchase)

Date of	Purchase			
Retaile	r			
Retaile	r's Phone Number			<del></del>
Equipm	ent			
	Model Number			
;	Serial Number			
Engine				
	Model	Type	Trim	

It is very important that you register your purchase with Snapper to ensure warranty coverage. Please mail your product registration card to:

Snapper at P.O. Box 777, McDonough, Georgia 30253.

Or you may register online at www.snapper.com.

You can contact us at our website, or if you would like to speak with a Customer Service Representative, call us at the Snapper Customer Relations Center at 1-800-935-2967. For faster service please have your Serial Number and Model Number available.

## **Table of Contents**



## **WARNING**



Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.



## **WARNING**



Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer or other reproductive harm.



## **Important Operator Safety Instructions**



**WARNING:** This powerful cutting machine is capable of amputating hands and feet and can throw objects that can cause injury and damage! Failure to comply with the following SAFETY instructions could result in serious injury or death to the operator or other persons. The owner of the machine must understand these instructions and must allow only persons who understand these instructions to operate machine. Each person operating the machine must be of sound mind and body and must not be under the influence of any substance, which might impair vision, dexterity or judgment. If you have any questions pertaining to your machine which your dealer cannot answer to your satisfaction, call or write the Customer Service Department at SNAPPER, McDonough, Georgia 30253. Phone: (1-800-935-2967).

#### Protection for Children

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. Never assume that children will remain where you last saw them.

- 1. KEEP children out of the mowing area and under the watchful care of a responsible adult other than the operator.
- 2. DO NOT allow children in yard when machine is operated and turn machine OFF if anyone enters the area.
- 3. DO NOT allow pre-teenage children to operate machine.
- 4. ALLOW only responsible adults & teenagers with mature judgment under close adult supervision to operate machine.
- 5. DO NOT pull mower backwards unless absolutely necessary. LOOK and SEE behind and down for children, pets and hazards before and while backing.
- 6. USE EXTRA CARE when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

#### Slope Operation

- 1. Slopes are a major factor related to slip and fall accidents, which can result in severe injury. All slopes require extra caution. If you feel uneasy on a slope, DO NOT mow it
- 2. Mow across slopes, never up-and-down. Exercise extreme CAUTION when changing directions on slopes. DO NOT mow steep slopes or other areas where stability or traction is in doubt. Refer to the Slope Guide at the end of this manual.
- 3. Use extra care with gcrass catchers or other attachments; these affect the handling and the stability of the machine.

#### **Preparation**

- 1. Read, understand, and follow instructions and warnings in this manual and on the mower, engine and attachments. Know the controls and the proper use of the mower before starting
- 2. Only mature, responsible persons shall operate the machine and only after proper instruction.
- 3. Data indicates that operators age 60 and above, are involved in a large percentage of mower-related injuries. These operators should evaluate their ability to operate the mower safely enough to protect themselves and others from serious injury.

## Preparation

#### (Continued From Previous Column)

- 4. Handle fuel with extra care. Fuels are flammable and vapors are explosive. Use only an approved fuel container. DO NOT remove fuel cap or add fuel with engine running. Add fuel outdoors only with engine stopped and cool. Clean spilled fuel and oil from machine. DO NOT smoke.
- 5. Check the area to be mowed and remove all objects such as toys, wire, rocks, limbs and other objects that could cause injury if thrown by blade or interfere with mowing. Also note the location of holes, stumps, and other possible hazards.
- 6. Keep people and pets out of the mowing area. Immediately, STOP Blade, Stop engine and Stop mower if anyone enters the area.
- 7. Check shields, deflectors, switches, blade controls and other safety devices frequently for proper operation and location.
- 8. Make sure all safety decals are clearly legible. Replace if damaged.
- 9. Protect yourself when mowing and wear safety glasses, a dust mask, long pants, and substantial footwear. DO NOT mow barefooted or with sandals.
- 10. Know how to STOP blade and engine quickly in preparation for emergencies.
- 11. Use extra care when loading or unloading the machine into a trailer or truck.
- 12. Check grass catcher components frequently for signs of wear or deterioration and replace as needed to prevent injury from thrown objects going through weak or torn spots.

#### Safe Handling of Gasoline

To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.

- 1. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
- 2. Use only an approved fuel container.
- 3. DO NOT remove fuel cap or add fuel with the engine running. Allow the engine to cool before refueling.
- 4. DO NOT refuel the machine indoors.
- 5. DO NOT store the machine or fuel container inside where there is an open flame, spark or pilot light such as on a water heater or other appliances.



## **Important Operator Safety Instructions (Continued)**



## Safe Handling of Gasoline (Continued From Previous Page)

- 6. DO NOT fill fuel containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place the containers on the ground away from the vehicle before filling.
- 7. Remove gas-powered equipment from the vehicle or trailer and refuel it on the ground. If this is not possible, then refuel equipment using a portable container, rather than a gasoline dispenser nozzle.
- 8. DO NOT start gas powered equipment in enclosed vehicles or trailers.
- Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. DO NOT use a nozzle lock-open device
- 10. If fuel is spilled on clothing, change clothing immediately.
- 11. DO NOT overfill a fuel tank. Replace fuel cap and tighten securely.

#### Operation

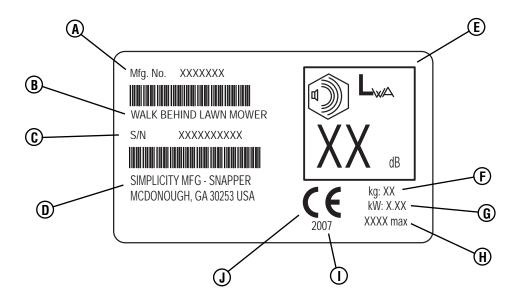
- 1. DO NOT put hands or feet near or under rotating parts. Keep clear of discharge area while engine is running.
- 2. STOP engine when crossing gravel drives, walks, or roads, and under any conditions where thrown objects might be a hazard.
- 3. Mow only in daylight or good artificial light.
- 4. DO NOT operate mower while under the influence of alcohol or drugs.
- 5. After striking a foreign object or if mower vibrates abnormally, STOP the engine, disconnect and secure spark plug wire. Inspect the mower for any damage and repair the damage before starting.
- 6. DO NOT mow near drop offs, ditches or embankments. Operator could lose footing or balance.
- 7. STAY ALERT for holes and other hidden hazards. Tall grass can hide obstacles. Keep away from ditches, washouts, culverts, fences and protruding objects.
- 8. DO NOT mow on wet grass. Always be sure of your footing. Keep a firm hold on the handle and walk, never run. Slipping could cause injury.
- 9. ALWAYS stay behind handle when engine (motor) is running.
- 10. DO NOT leave the machine with the engine running. STOP BLADE and STOP ENGINE before leaving the operators position for any reason.
- 11. Before cleaning, repairing or inspecting make certain engine, blade and all moving parts have STOPPED. Disconnect and secure spark plug wire away from plug to prevent accidental starting.
- STOP engine and wait until the blade comes to complete STOP before removing grass bag and/or clearing grass.

## Operation (Continued From Previous Column)

- 13. DO NOT operate mower without the entire grass catcher, discharge guard, rear guard or other safety devices in place and working. DO NOT point discharge at people, passing cars, windows or doors.
- 14. DO NOT discharge material against a wall or obstruction. Material may ricochet back towards the operator.
- 15. Slow down before turning.
- 16. Watch out for traffic when near or crossing roadways.
- 17. DO NOT operate engine in enclosed areas. Engine exhaust gases contain carbon monoxide, a deadly poison.
- 18. Only use accessories approved by the manufacturer. See manufacturer's instructions for proper operation and installation of accessories.

#### **Maintenance and Storage**

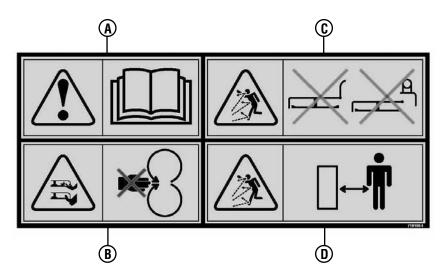
- 1. DO NOT store mower or fuel container inside where fumes may reach an open flame, spark or pilot light such as in a water heater, furnace, clothes dryer or other gas appliance. Allow engine to cool before storing machine in an enclosure. Store fuel container out of reach of children in a well ventilated, unoccupied building.
- 2. Keep mower and engine free of grass, leaves or excess grease to reduce fire hazard and engine overheating.
- 3. When draining fuel tank, drain fuel into an approved container outdoors and away from open flame.
- 4. Keep all bolts, especially blade bolts, nuts and screws properly tight. Check that all cotter pins are in proper position.
- 5. Always provide adequate ventilation when running engine. Engine exhaust gases contain carbon monoxide, a deadly poison.
- 6. Service engine and make adjustments only when engine is stopped. Remove spark plug wire from spark plug and secure wire away from spark plug to prevent accidental starting.
- 7. DO NOT change engine governor speed settings or overspeed engine.
- 8. Check grass bag assembly frequently for wear or deterioration to avoid thrown objects and exposure to moving parts. Replace with new bag if loose seams or tears are evident. Replace slider or bag adapter if broken or cracked.
- 9. Mower blades are sharp and can cut. Wrap the blades or wear heavy leather gloves and use CAUTION when handling them.
- 10. DO NOT test for spark by grounding spark plug next to spark plug hole; spark plug could ignite gas exiting engine.
- 11. Have machine serviced by an authorized SNAPPER dealer at least once a year and have the dealer install any new safety devices.
- 12. Use only genuine SNAPPER replacement parts to assure that original standards are maintained.



#### (1) Serial Tag:

- A. Manufacturing (Part) Number
- B. Description/Model Number
- C. Serial Number
- D. Manufacturer Information
- E. Sound Power

- F. Unit Mass
- G. Kilowatts
- H. Max RPM's
- I. Year of Manufacture
- J. European Certification



#### (2) Warning Instructions:

- A. Read, understand and follow instructions and warnings in the operator's manual, as well as on the mower, engine and attachments before operating.
- B. Indicates possible severe injury from rotating cutting blades.
- C. Do not operate without entire grass catcher or guard in place.
- D. Keep children and others out of mowing area.



#### (3) Engine Speed Control:

Indicates direction to increase engine RPM (rabbit), decrease engine RPM (turtle).



## (5) Operator Presence Control (OPC):

Arrow points to the OPC bail. When bail is rotated rearward, the engine may be started and will run as indicated by the engine with rotating arrow. With the engine running, the blade is rotating as indicated by the cut grass symbol. When the bail is released and rotates forward, the engine will stop.



#### (4) Speed Selector:

Indicates ground speed selection: '3' (Rabbit) indicates top speed; '2', medium speed; '1' (Turtle), slowest speed.



#### (6) Clutch:

Located on the plastic grip of the traction control lever. Moving the lever toward the handle engages the traction clutch and forward motion starts. When the lever is released, the clutch disengages and forward motion stops.

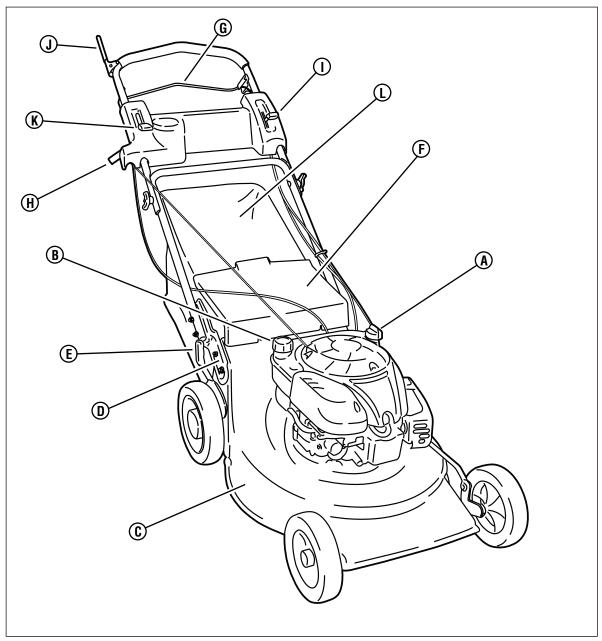


#### (7) Height Control Instruction:

Shows direction of movement of Height Adjust Handle to select a change in height of cut from highest cutting height (clockwise) to the lowest (counterclockwise). Note that there is a total of eleven heights of cut.

#### IMPORTANT

The figures and illustrations in this manual are provided for reference only and may differ from your specific model. Contact your Snapper dealer if you have questions.



## **Features and Controls**

- A. Oil Fill Cap and Dipstick
- B. Fuel Filler Cap
- C. Mower Deck
- D. Handle Bracket
- E. Height-of-Cut Adjustment Handle
- Discharge Door

- G. **Blade Control**
- Rope Start Handle H.
- **Ground Speed Control** I.
- Drive Wheel Control
- J. K. **Engine Speed Control**
- **Grass Catcher**

## **Operation**

## **Pre-Start Check List**

Make the following checks and perform the service required before each start-up.

- Check the guards, deflectors, grass bag, adapter, and covers to make sure all are in place and securely tightened.
- 2. Check the blade control (A, Figure 1), wheel drive control (B), and ground speed control (C) to insure they work freely.

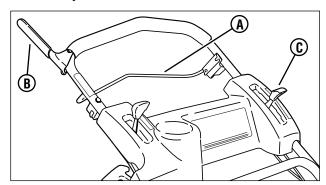


Figure 1: Mower controls

- 3. Check the cutting height. Adjust to the desired height. Refer to the Section entitled 'Cutting Height Adjustment'.
- 4. Check the engine oil **(A, Figure 2)** and add oil as needed to bring the level up to the full mark. Refer to the Engine Owner's Manual for oil specifications.

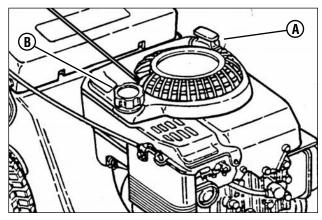


Figure 2: Oil and fuel fill

- 5. Add fuel to the tank after pushing the mower outside where fumes can safely dissipate. Fill the tank to 1-1/2 inches below the top of the filler neck (to allow for fuel expansion). Make sure the cap (B, Figure 2) is tightened after fueling. Refer to the Engine Owners Manual for fuel specifications.
- 6. Clean the exterior surfaces of the cutting deck and engine of any accumulation of spilled fuel, dirt, grass, oil, etc. Keep the engine air intake screen and cooling fins clear at all times.

## **Starting and Operation**

#### **Engine and Blade**

- 1. Move the engine speed control (C, Figure 3) past the fast ('Rabbit') detent to the 'Choke' position.
- 2. Pull the blade control (A, Figure 3) against the handle.
- 3. Pull the rope start handle (B) to crank the engine.
- 4. After the engine starts, allow a brief warm-up until the engine runs smooth, then turn off choke.

*NOTE:* To stop the engine (and blade), release the blade control.

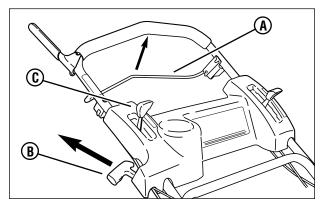


Figure 3: Starting the mower

## **Operation (Continued)**

## **Starting and Operation (Continued)**

#### **Propelling the Mower**

- 1. Start the engine. Refer to the Section entitled "Starting and Operation Engine and Blade".
- 2. Move the ground speed control (A, Figure 4) to the desired speed position.
- 3. Squeeze the wheel drive control **(B)** against the handle to engage the wheel drive and propel the mower forward.

**Important:** Forward motion of the machine must be stopped before changing the position of the ground speed control.

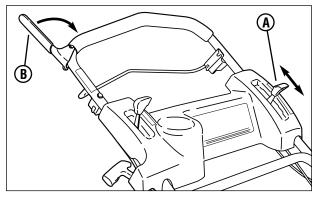


Figure 4: Mower drive controls

## **Stopping**

- 1. Stop forward motion of the mower by releasing the wheel drive control.
- 2. Stop the engine and blade by releasing the blade control.

## **Handle Height Adjustment**

The height of the mower handle can be adjusted as follows:

1. Loosen the lower nuts (A, Figure 5) on each lower handle.

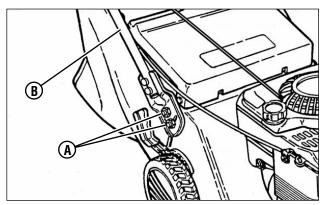


Figure 5: Adjusting the handle height

- 2. Move the handle assembly **(B)** up or down until the desired position is achieved.
- 3. Tighten the lower nuts on each lower handle to maintain the desired position.

Note: Torque the nuts to 15-25 ft-lbs.



### WARNING



DO NOT attempt any maintenance, adjustments or service with engine and blade running. STOP engine and blade. Disconnect spark plug wire and secure away from spark plug. Engine and components are HOT. Avoid serious burns, allow sufficient time for all components to cool.

## **Operation (Continued)**



## WARNING



DO NOT attempt any maintenance, adjustments or service with engine and blade running. STOP engine and blade. Disconnect spark plug wire and secure away from spark plug. Engine and components are HOT. Avoid serious burns, allow sufficient time for all components to cool.

## **Cutting Height Adjustment**

1. Pull the cutting height adjusting handle (A, Figure 6) outward and move to the desired cutting height.

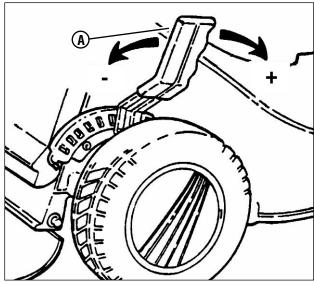


Figure 6: Adjusting cutting height



## WARNING



Stop engine and mower blade by releasing the blade control before adjusting cutting height.

## **Recycling Operation**

Converting this mower to the recycling operation requires no tools. First, STOP the engine. Raise the discharge door (A, Figure 7) located at the rear of machine. Remove the grass catcher (if installed). Insert the recycling plug (B) fully into the discharge opening. Allow the discharge door to close.

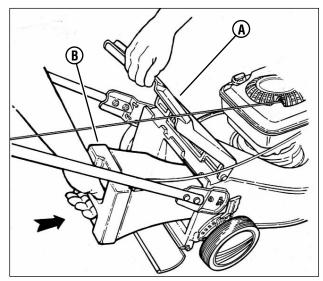


Figure 7: Inserting the recycling plug

NOTE: For best recycling results, cut up to a maximum of 1/3 of grass blade length and recycle ONLY when grass is dry.

- 1. Set the cutting height at the highest cutting position.
- 2. Move the engine speed control to the "FAST" (Rabbit) position.
- 3. Move the ground speed control to the slowest speed setting.
- 4. Proceed mowing slowly. If the grass is very dense, raise the cutting height to improve recycling performance.

## WARNING



DO NOT attempt any maintenance, adjustments or service with engine and blade running. STOP engine and blade. Disconnect spark plug wire and secure away from spark plug. Engine and components are HOT. Avoid serious burns, allow sufficient time for all components to cool.



## WARNING



DO NOT operate mower without entire grass catcher, side chute or recycling plug in place. Grass Catcher components are subject to deterioration during normal use. Inspect frequently and replace worn or damaged components immediately.

## **Installing the Grass Catcher**

- 1. Follow the WARNING statement found on this page.
- 2. Lift the discharge door (A, Figure 8) located at the rear of the machine.
- 3. Install the grass catcher **(B)** onto the rear of the machine. Position the rod ends **(C)** of the catcher frame over the tabs **(D)** located at the rear of deck. Release the discharge door, which is spring loaded, onto the top of the grass catcher.



## WARNING



Grass Catcher bags used on SNAPPER products are made of woven fabric, and are subject to deterioration and wear during normal usage. Check condition of bag before each use. Immediately replace worn or damaged catcher bags with only bags recommended by SNAPPER. The grass catcher is optional equipment on some models.

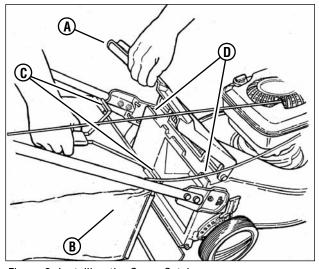


Figure 8: Installing the Grass Catcher

10

## **Maintenance**

## **Maintenance - Introduction**

To retain the quality of the mower, use genuine SNAPPER replacement parts only. Contact a local SNAPPER dealer for parts and service assistance. For the correct part or information for a particular mower, always mention the model and serial number.



## WARNING



DO NOT attempt any maintenance, adjustments or service with engine and blade running. STOP engine and blade. Disconnect spark plug wire and secure away from spark plug. Engine and components are HOT. Avoid serious burns, allow sufficient time for all components to cool.

# Service - After First 5 Hours Change Engine Oil

NOTE: Due to the location of the oil drain plug, perform the following procedure for the easiest oil change.

- 1. Disconnect the spark plug wire and secure the end away from the plug.
- Tip the mower on its side, with the oil fill (A, Figure 9) down. Do not tip the mower with the spark plug or carburetor down.

**Important:** Drain the fuel tank before tipping the machine. DO NOT tip the machine with the carburetor or spark plug down. Oil from the crankcase will saturate the air filter and cause the engine to be hard to start or not start at all. If contamination does occur, the air filter will have to be replaced.

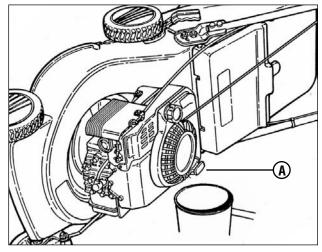


Figure 9: Draining the engine oil

- Place a shallow pan underneath the approximate center of the oil fill.
- Remove the oil fill cap and allow the oil to drain out completely into the pan. Some oil may spill; immediately wipe hands and engine clean with cloth rags. Dispose of oil properly.
- 5. Tip the mower back up.
- 6. Fill the engine with oil as specified in the Engine Owner's Manual. Thereafter, change the oil after each 25 hours of use.

#### **Grease Level in Transmission**

The transmission requires no lubrication or maintenance. If transmission leaks or malfunctions, return machine to an authorized Snapper dealer for repair.

#### **Wheel Drive Control**

The wheel drive control requires periodic adjustment to maintain proper drive function. The adjustment is performed with the thumbwheel located on the wheel drive control cable and requires no tools. Refer to the section entitled "WHEEL DRIVE CONTROL ADJUSTMENT".



#### WARNING



DO NOT attempt any maintenance, adjustments or service with engine and blade running. STOP engine and blade. Disconnect spark plug wire and secure away from spark plug. Engine and components are HOT. Avoid serious burns, allow sufficient time for all components to cool. Wear heavy leather gloves when handling or working around cutting blades. Blades are extremely sharp and can cause severe injury.

#### **Check Mower Blade**

- 1. Disconnect the spark plug wire and secure the end away from the plug.
- 2. Tilt the mower up on its rear wheels for access to the blade cap screws (A, Figure 10). Do not tilt the mower with the spark plug or carburetor down.

Important: Drain the fuel tank before tipping the mower. DO NOT tip the machine with the carburetor or spark plug down. Oil from the crankcase will saturate the air filter and cause the engine to be hard to start or not start at all. If contamination does occur, the air filter will have to be replaced.

- 3. Check the torque of the blade cap screws. Recommended torque should be 40 ft. lbs.
- 4. Check the blade for sharpness, wear and damage. Refer to the Section entitled "Blade Wear Limits".

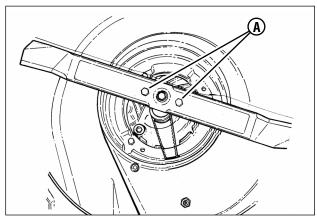


Figure 10: Tightening the blade cap screw

## **Check Engine to Transmission Drive Belt**

 Visually check the drive belt for cracking, fraying, severed or exposed belt strands. If worn or damaged, replace the belt before operating the mower. Refer to the section entitled "BELT SERVICE" for replacement instructions.

## Service - Periodic

Perform all maintenance as described in the "Service Schedule" section of this manual.

#### Engine

Service the engine according to the engine owner's manual.

#### Air Filter

Refer to the engine owner's manual for service instructions.

#### **Engine Oil**

Refer to the engine owner's manual for service instructions.

## **Storage Procedure**

Refer to the Engine Owner's Manual for directions regarding engine storage preparations. Prepare the mower for "end of season" storage as follows:

- 1. Drain the fuel from the fuel tank and let the engine run until all fuel is out of the carburetor.
- 2. Disconnect and remove the spark plug wire away from the spark plug before any other preparations are made!
- 3. Tape all openings closed to prevent spraying water into the exhaust or air intakes during washing.
- 4. Tilt the mower up on its rear wheels and thoroughly clean the underside of the deck. Do not tilt the mower with the spark plug or carburetor down. Scrape away any accumulation of grass with a putty knife and/or wire brush.
- 5. Lubricate all exposed metal with a light coating of oil to prevent corrosion.
- 6. Loosen the handle knobs. Carefully fold the handles forward, "flexing" the control cables to prevent cable damage.
- 7. Store the mower in a shed or other dry area, protected from weather.



## WARNING



DO NOT attempt any maintenance, adjustments or service with engine and blade running. STOP engine and blade. Disconnect spark plug wire and secure away from spark plug. Engine and components are HOT. Avoid serious burns, allow sufficient time for all components to cool. Wear heavy leather gloves when handling or working around cutting blades. Blades are extremely sharp and can cause severe injury.

## **Mower Blade Replacement**

#### Standard Blade Wear Limit

- 1. Inspect the blade (**Figure 11**) frequently for signs of excessive wear or damage:
  - (A) New blade
  - (B) Wear limit (notch starts)
  - (C) Dangerous condition! Do not use on the mower! Replace with a new blade.

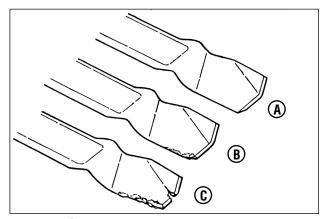


Figure 11: Standard blade wear limits



## WARNING



DO NOT use a cutting blade that shows signs of excessive wear or damage. Refer to the Section entitled "MOWER BLADE REPLACEMENT" for proper blade inspection and service procedures.

### **Blade Sharpening**

- 1. Disconnect the spark plug wire and secure the end away from the plug.
- 2. Tilt the mower up on its rear wheels. Do not tilt the mower with the spark plug or carburetor down.

Important: Drain the fuel tank before tipping the mower. DO NOT tip the machine with the carburetor or spark plug down. Oil from the crankcase will saturate the air filter and cause the engine to be hard to start or not start at all. If contamination does occur, the air filter will have to be replaced.

#### 3. Remove the blade (B, Figure 12).

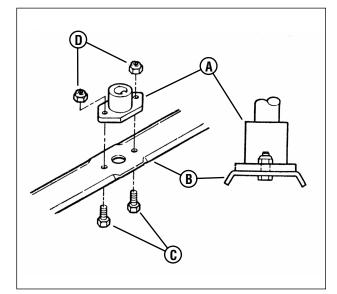


Figure 12: Removing the mower blade



#### WARNING



DO NOT attempt any maintenance, adjustments or service with engine and blade running. STOP engine and blade. Disconnect spark plug wire and secure away from spark plug. Engine and components are HOT. Avoid serious burns, allow sufficient time for all components to cool. Wear heavy leather gloves when handling or working around cutting blades. Blades are extremely sharp and can cause severe injury.

## Blade Sharpening (Continued)

4. Sharpen the blade on a grinding wheel at an angle of 22 to 28 degrees (B, Figure 13). DO NOT sharpen the blade beyond the original cutting edge (A).

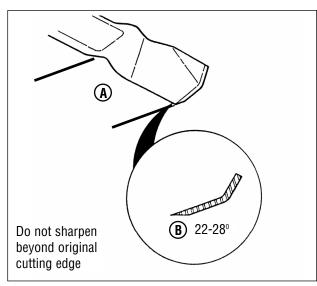


Figure 13: Sharpening the mower blade

- 5. Check blade for balance. If necessary, correct balance by grinding heavy end of blade.
- 6. Reinstall blade (B, Figure 12). Note the correct assembly order:
  - (A) Blade hub
  - (B) Blade (flange facing down)
  - (C) Capscrews
  - (D) Nuts
- 7. Check torque of blade retaining cap screw. Recommended torque should be 40 ft. lbs.

## **Wheel Drive Control Adjustment**

#### (Engine To Transmission Drive Belt)

The wheel drive control requires periodic adjustment to maintain proper engine to transmission drive belt tension. The adjustment is located on the right handle and requires no tools.

**IMPORTANT:** DO NOT operate the engine when inspecting or adjusting the drive belt.

- 1. Visually check the engine drive belt for cracking, fraying, severed or belt strands exposed. Replace the belt before operating the mower.
- 2. Check for proper drive belt tension:
  - STOP the engine.
  - Shift the ground speed control to 1st and engage the wheel drive control.
  - With the wheel drive control (A, Figure 14)
    engaged, pull the mower handles, moving the
    mower rearward.
  - Observe the rear wheels. If the rear wheels slide on the surface (no rotation) the belt is properly tensioned and the control does not require adjustment.
- 3. If the rear wheels rotate, increase belt tension by rotating the thumb screw (B) COUNTER-CLOCKWISE.
- 4. Turn the thumb screw one turn at a time and recheck tension.
- 5. When proper belt tension has been set, operate the machine and verify proper wheel drive control function.

**IMPORTANT:** DO NOT over-tighten the wheel drive control. DO NOT operate if the control or drive does not function properly. Contact your local SNAPPER Dealer for assistance.

**IMPORTANT:** If the machine creeps forward after the wheel drive control is released, the cable is too tight and must be readjusted to eliminate all forward movement. The machine must not have any forward movement when the wheel drive control is disengaged. If the wheel drive control fails to return quickly to the "OFF" position when released, check for a broken, binding, or kinked cable.

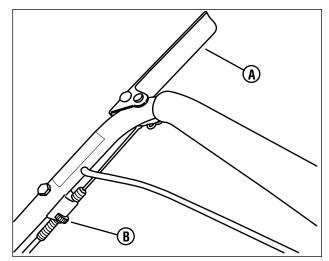


Figure 14: Wheel drive control adjustment



## WARNING



DO NOT attempt any maintenance, adjustments or service with engine and blade running. STOP engine and blade. Disconnect spark plug wire and secure away from spark plug. Engine and components are HOT. Avoid serious burns, allow sufficient time for all components to cool. Wear heavy leather gloves when handling or working around cutting blades. Blades are extremely sharp and can cause severe injury.

## **Belt Service**

The condition of the engine to transmission belt should be checked after every 25 hours of mower operation.

#### **Engine To Transmission Belt Replacement**

- 1. Follow the WARNING statement found on this page.
- 2. Remove the retaining screw (F, Figure 15) that secures the belt cover (E). Remove the belt cover. See Figure 4.5
- 3. Disconnect the belt **(C)** from the transmission pulley **(D)**.
- 4. Tilt the mower up on its rear wheels. Do not tilt the mower with the spark plug or carburetor down.
- 5. Remove the retaining bolts and nuts **(B)** that secure the blade **(A)**. Remove the blade.
- 6. Remove the belt from around the engine pulley.
- 7. Install the new belt around the engine pulley. Insert the belt through the opening in the deck.
- 8. Secure the blade with the bolts and nuts removed in Step 5. Tighten the nuts and bolts to 30 to 40 ft. lbs.
- 9. Install the new belt over the transmission pulley. Install the belt cover and secure with the retaining bolt. Tighten securely.

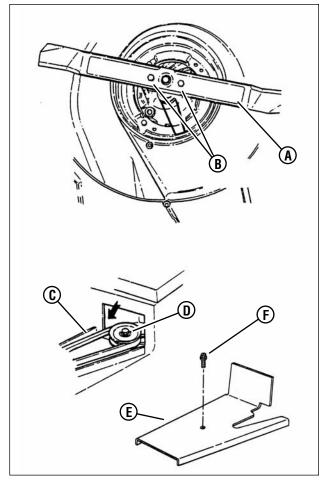


Figure 15: Replacing the drive belt

## **Service Schedule**

ITEM	SERVICE PERFORMED	REF.	EACH USE	5 HRS	25 HRS	50 HRS	100 HRS	EACH SEASON
Engine Oil	Check Oil Level	Page 7	Х					
	Initial Oil Change	Page 11		Х				
	Periodic Oil Change	Page 12			Χ*			
Air Pre-Cleaner	Clean Sponge Element	Engine Manual			X**			
Air Cleaner	Clean or Replace	Engine Manual			X**			
Spark Plug	Replace	Engine Manual					Х	
Engine Cooling System	Clean Shroud and Fins	Engine Manual					X**	
Drive Belt	Check for Wear and Tension	Pages 12, 15			Х	Х		Х
Mower Blade	Check for wear, Damage & Replacement	Pages 12 - 14	Х					
Mower Deck	Clean Debris Accumulation	Page 7	Х					
Transmission Grease	Check Grease Level	Page 11			Х			Х

<sup>\*</sup> Change oil every 25 hours when operating under heavy load or high temperatures.

## **Maintenance/Replacement Parts**

Engine Speed Control	7100999
Blade Control Cable	7100976
Wheel Drive Control Cable	7046518
21" Cutter Blade (Mulching)	7026428
Engine to Transmission Belt	7029492
Parts Manual for 21" Cast Aluminum Deck Walk Behind Mower Series 3	7006204

<sup>\*\*</sup> Clean more often under dusty conditions or when air debris is present.

## Troubleshooting

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Engine Will Not Start Using	1. Fuel tank empty.	1. Fill fuel tank with fresh fuel.
Recoil Starter	2. Engine needs choking.	2. Choke engine.
	3. Spark plug wire disconnected.	3. Place spark plug wire onto spark plug.
	Blade control is released or is not being held securely against handle.	Blade control should be held securely against handle at all times during operation of mower.
T	2. Fuel tank empty.	2. Fill with fuel to proper level.
	3. Engine air pre-cleaner and or air cleaner dirty.	3. Clean free of all debris.
	4. Spark plug defective or gap set improperly.	4. Service spark plug.
	5. Water, debris or stale fuel in fuel system.	5. Drain and clean fuel system.
	6. Choke on.	6. Turn off choke.
Engine Loses Power	Engine air pre-cleaner or air cleaner dirty.	1. Clean or replace filters.
	2. Spark plug faulty.	2. Service spark plug.
	3. Water, debris or stale fuel in fuel system.	3. Drain and clean fuel system.
	Debris build-up on engine cooling screen.	Clean all debris from engine cooling system.
	5. Choke on.	5. Turn off choke.
Excessive Vibration	Damaged, out of balance or bent mower blade.	1. Service mower blade.
	2. Loose blade components.	2. Service and tighten loose parts.
	3. Loose or missing air lift (if equipped).	3. Replace air lifts. Tighten to proper torque.
	4. Lumpy or frayed belt.	4. Replace belt.
Mower Will Not Move Loss Of	1. Damaged transmission	1. Contact authorized SNAPPER dealer.
Traction	Drive belt requires replacement or adjustment.	2. Replace or adjust drive belt.
	3. Insufficient lubrication in transmission/differential.	3. Contact authorized SNAPPER dealer.
Cutting Grass Improperly	1. Cutting height too low or high.	1. Adjust cutting height.
	2. Engine speed too slow.	2. Move engine speed control to 'Fast' position.
	3. Forward ground speed too fast.	3. Move ground speed control to a slower speed.
	4. Cutting blade dull or damaged.	4. Sharpen cutting edges or replace blade.
Poor Grass Discharge	1. Engine speed too fast.	1. Move engine speed control to 'Fast' position.
	2. Forward speed too fast.	2. Move ground speed control to a slower speed.
	3. Grass is wet.	3. Mow when grass is dry.
	4. Excessively worn or damaged blade.	4. Service mower blade.
	5. Build up of grass clippings and debris under deck.	5. Clean deck.
	6. Improper blade installed on deck.	6. Install proper SNAPPER blade.
	7. Blade installed improperly on deck.	7. Install blade properly.
Oil Leaking	1. Leaking engine case.	Contact authorized SNAPPER dealer.
		2. Check and tighten drain plug.
		Make sure dip stick or oil filler cap is securely in place.



#### 2 YEAR LIMITED WARRANTY

For two (2) years from purchase date for the original purchaser's residential, non-commercial use, SNAPPER, through any authorized SNAPPER dealer will replace, free of charge (except for taxes where applicable), any part or parts found upon examination by the factory at McDonough, Georgia, to be defective in material or workmanship or both.

For ninety (90) days from purchase date for the original purchaser's commercial, rental, or other non-residential use, SNAP-PER, through any authorized SNAPPER dealer will replace, free of charge, any part or parts found upon examination by the factory at McDonough, Georgia, to be defective in material or workmanship or both.

All transportation costs incurred by the purchaser in submitting material to an authorized SNAPPER dealer for replacement under this warranty must be paid by the purchaser.

This warranty does not apply to certain transmissions, to engines and their components, and batteries, as these items are warranted separately. This warranty does not apply to parts that have been damaged by accident, alteration, abuse, improper lubrication, normal wear, or other cause beyond the control of SNAPPER. This warranty does not cover any machine or component part that has been altered or modified changing safety, performance, or durability.

Batteries have a one (1) year warranty period with free replacement if required for one (1) year from the original purchase date. SNAPPER will not be responsible for any installation cost incurred. The battery warranty only covers original equipment batteries and does not cover damage to the battery or machine caused by neglect or abuse, destruction by fire, explosion, freezing, overcharging, improper maintenance, or use of improper electrolyte.

There is no other express warranty.

#### **DISCLAIMER OF WARRANTY**

Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to two (2) years from purchase date for the original purchaser's residential or other non-commercial use, and ninety (90) days from purchase for the original purchaser's commercial, rental or other non-residential use, and to the extent permitted by law, any and all implied warranties are excluded. This is the exclusive remedy. Liabilities for consequential damages, under any and all warranties are excluded.

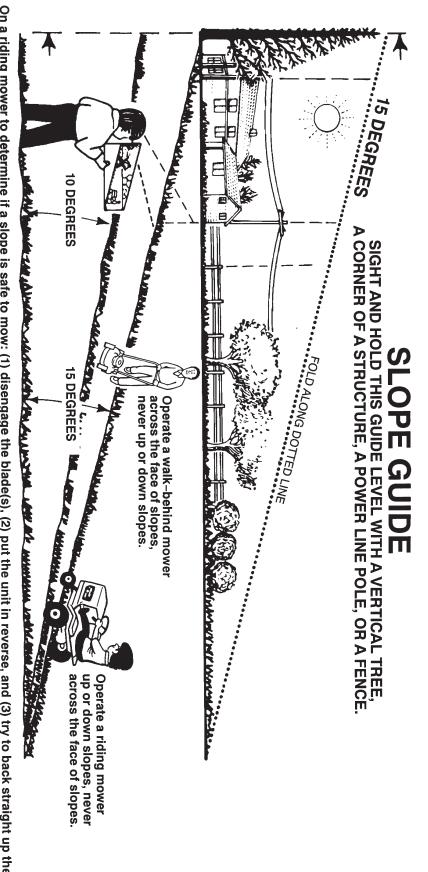
Some states do not allow limitations on how long an implied warranty lasts, or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

WARNING: THE USE OF REPLACEMENT PARTS OTHER THAN GENUINE SNAPPER PARTS MAY IMPAIR THE SAFETY OF SNAPPER PRODUCTS AND WILL VOID ANY LIABILITY AND WARRANTY BY SNAPPER ASSOCIATED WITH THE USE OF SUCH PARTS.

IMPORTANT: Please fill out the attached SNAPPER Product Registration Card immediately and mail to:

Snapper's Product Registration Center, P.O. Box 1379, McDonough, Georgia 30253



On a riding mower to determine if a slope is safe to mow: (1) disengage the blade(s), (2) put the unit in reverse, and (3) try to back straight up the slope. If you can back up the slope, it is generally safe to mow. However, if you do not feel safe, or if you are not completely sure, use this guide and do not mow a slope that is greater than 15 degrees. If the riding mower is used with a pull-behind or rear mounted attachment, do not operate the unit on a slope that is greater than 10 degrees. A 15 degree slope is a hill that increases in height at approximately 2.5 feet in 10 feet. A 10 degree slope is a hill that increases in height at approximately 1.7 feet in 10 feet. Use extreme care at all times, and avoid sudden turns or maneuvers. Follow other instructions in this manual for safety in mowing on



of slopes, never up or down slopes. Use extra care when operating on or near slopes and obstructions. slopes. Operate a riding mower up or down slopes, never across the face of slopes. Operate a walk-behind mower across the face

CUT HERE TO USE SLOPE GUIDE

Notes			
-			

Notes		

# SNAPPER®

# EUROPEAN 21" CAST ALUMINUM DECK WALK MOWERS SERIES 3

<b>Product Specifications</b>		Common Service Parts	Part Number
Deck Size (in/cm)	21 / 53	Cutter Blade (Mulching)	7026428
Height of Cut (in/cm)	1.0 - 3.8 / 2.5 - 9.6	Drive Belt (Engine to Transmission)	7029492
Transmission Type	Gear	Parts Manual	7006204
Ground Speed (mph/kph)	2.0 - 4.0 / 3.2 - 6.4		
Engine Power (gross ft lbs/kw)	6.75 / 2.82		
Engine Displacement (cu in/cc)	11.59 / 190		
Fuel Tank Capacity (qt/L)	1.6 / 1.5		

Engine Power Rating Information: The gross power rating for individual gas engine models is labeled in accordance with SAE (Society of Automotive Engineers) code J1940 (Small Engine Power & Torque Rating Procedure), and rating performance has been obtained and corrected in accordance with SAE J1995 (Revision 2002-05). Torque values are derived at 3060 RPM; horsepower values are derived at 3600 RPM. Actual gross engine power will be lower and is affected by, among other things, ambient operating conditions and engine-to-engine variability. Given both the wide array of products on which engines are placed and the variety of environmental issues applicable to operating the equipment, the gas engine will not develop the rated gross power when used in a given piece of power equipment (actual "on-site" or net power). This difference is due to a variety of factors including, but not limited to, accessories (air cleaner, exhaust, charging, cooling, carburetor, fuel pump, etc.), application limitations, ambient operating conditions (temperature, humidity, altitude), and engine-to-engine variability. Due to manufacturing and capacity limitations, Briggs & Stratton may substitute an engine of higher rated power for this Series engine.